

### **REMARKS**

Claims 1-12 are pending. Claims 1-9 and 12 stand rejected. Claims 10 and 11 are objected to. Applicants cancel without prejudice claim 10 and amend claims 1, 11, and 12. Accordingly, after entry of this Amendment, claims 1-9, 11, and 12 will be pending for examination. Applicants submit that the amendments introduce no new matter and that claims 1-9, 11, and 12 are in condition for allowance.

#### **Amendment to the Specification**

Applicants amend the specification to refer to the international application from which this application entered the U.S. as a national stage application, and to refer to the foreign patent application to which the international application claims priority. Applicants submit that no new matter is introduced.

#### **Amendments to the Claims**

Applicants cancelled without prejudice claim 10 and introduce the limitations of claim 10 into independent claims 1 and 12. Applicants also amend claims 1 and 12 to correct a typographical error. Applicants amend claim 11 to correct its dependency to claim 1. Accordingly, Applicants submit that no new matter is introduced.

#### **Rejections Under 35 U.S.C. § 102**

Claims 1-9 and 12 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,395,669 to Sartain et al.

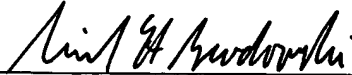
Without acquiescing to the rejection and to expedite allowance of the application, Applicants amend independent claims 1 and 12 to include the limitations of claim 10, which was objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form. Accordingly, Applicants submit that amended independent claims 1 and 12 are in condition for allowance. Further, Applicants submit that claims 2-9 and 11, which depend directly or indirectly from claim 1, also are in condition for allowance.

### **CONCLUSION**

Based on the above amendments and remarks, Applicants submit that pending claims 1-9, 11, and 12 are in condition for allowance and respectfully request entry as such. If the Examiner

believes that a conversation with Applicants' attorney would be helpful in expediting prosecution of this application, the Examiner is invited to call the undersigned attorney at (617) 248-7012.

Respectfully submitted,



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**MARKED-UP VERSION OF AMENDED CLAIMS**

1. (Twice Amended) A catalyst system for polymerisation of ethylene, comprising chromium oxide and a metallocene supported on an inorganic support, characterised by:

- a) said support being a particulate inorganic oxide;
- b) chromium of said chromium oxide being in a reduced oxidation state,

and

- c) a metallocene compound having a formula:



wherein each Cp, being equal or different, is an unsubstituted or substituted cyclopentadienyl compound, and R' and R'', [~~independent~~] independent of each other, are selected from the group consisting of alkyls having 1 to 6 carbon atoms, unsubstituted or substituted benzyl, and phenoxy substituted with alkyls having 1 to 6 carbon atoms, and R' or R'' may be a halide, and characterized by a molar ratio between zirconium and chromium in the final catalyst in a range from 0.1:1 to not higher than 2:1.

11. (Twice Amended) A catalyst system according to claim 1 [~~10~~], characterised in that said molar ratio between zirconium and chromium is from 0.5:1 to 1:1.

12. (Twice Amended) A method for the preparation of a catalyst system for polymerisation of ethylene, comprising chromium oxide and a metallocene supported on an inorganic support, the method comprising the steps of:

- a) calcining a support being a particulate, inorganic oxide selected from the group consisting of alumina, silica, titania, zirconia, magnesia, and combinations thereof,
- b) joining onto a surface of said support a chromiumorganic compound to obtain a catalyst precursor,
- c) subjecting said catalyst precursor to oxidising conditions to obtain chromium in an oxidised state, and
- d) subjecting said catalyst precursor to reducing conditions to obtain a prereduced catalyst, characterised by

- e) reducing the oxidised chromium to obtain a main part thereof in a bivalent oxidation state, and
- f) contacting said reduced catalyst with a metallocene compound having a formula:



wherein each Cp, equal or different, is an unsubstituted or substituted cyclopentadienyl compound, and R' and R'', [~~independant~~] independent of each other, are selected from the group consisting of alkyls having 1 to 6 carbon atoms, unsubstituted or substituted benzyl, and phenoxy substituted with alkyls having 1 to 6 carbon atoms, and R' or R'' may be a halide, and characterized by a molar ratio between zirconium and chromium in the final catalyst in a range from 0.1:1 to not higher than 2:1.